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AN EXPOSITION OF THE FALLACIES OF THE

Materialistic Theory

OF

Physiological Psychology.

BY

J. M. WINN, M.D., M.R.C.P., *etc.*,

(CONSULTING PHYSICIAN OF ST. GEORGE'S AND ST. JAMES'S DISPENSARY.)

AUTHOR OF "COLLAPSE OF SCIENTIFIC ATHEISM," "MATERIALISM," "HEREDITARY DISEASE," "GENERAL PARALYSIS OF THE INSANE," ETC.



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SKEFFINGTON & SON, PICCADILLY, W.

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From the Water

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Preface.

PHYSIOLOGICAL PSYCHOLOGY. The arguments opposed to this infidel doctrine, ^{or} from the substance of articles which were published in Dr. Forbes Winslow's *Journal of Psychological Medicine*, between the years 1875 and 1883, and of an address I delivered at the Victoria Institute, in 1877.

I have been induced to re-publish the arguments, from the circumstance that there are still numerous believers in this doctrine. But more especially have I been incited to the task by reading the address, as reported in *The Times*, which Prof. Burdon-Sanderson delivered at the meeting of the British Association, at Nottingham. I regret to say, he expressed his belief not only in the theory of Physiological Psychology, but also in other materialistic and improbable notions of the scientific atheists. He upheld the views of Wundt, the founder of the school of Physiological Psychology. He asserted that mind must be considered "as one of the specific energies of the organism." In other words, that it is a function of the brain, and not a distinct spiritual entity.

As to abiogenesis (spontaneous generation) he says

the question is still undetermined. I thought there was scarcely anyone living who had the slightest belief in this extravagant notion, after Dr. Tyndall had proved the inconclusiveness of Dr. Bastian's experiments. By a thousand delicate tests he made it perfectly clear that Dr. Bastian had completely failed to demonstrate, as he supposed, that living germs had been developed from dead vegetable matter.

Dr. Burdon - Sanderson adopts Treviranus's vague definition of life, which he said was "a consisting of the reaction of the organism to external influence with the variety of exciting causes." This is on a par with Herbert Spencer's *indefinite* definition of life, which he described, "as a continuous adjustment of internal relations to external relations !"

I remarked in the Journal of Psychological Medicine, for 1876, that—Life, this birth, this growth, this mystery, we cannot comprehend, must have been superadded to matter after the creation of the earth ; it is in fact a living miracle.

The Professor's observations on the movements of brainless animalcules are not devoid of interest ; but he is not likely, by studying their nature, to throw any light on the cerebral functions of the higher grades of animals, and much less so, on the faculties of the human mind.

He also has an exalted opinion of Darwin, of whom he says : " There was no true philosophy of living nature until Darwin."

The late Rev. F. O. Morris, a distinguished naturalist, in speaking of Darwinism, happily termed it "*The Darwin Craze.*"


A scientific observer, like Darwin, may make a thousand observations without having the good fortune to make any important discovery; and though ready to accord to Darwin all honour for his industry and love of science, we cannot rank him with those who have *established great or general truths*. But so far from having established a general principle he has promulgated a doctrine, not only untrue in theory, but most dangerous in practice, as evidenced by a statement of the anarchist Vaillant's confession at his trial, as reported in *The Standard*. Vaillant said that all he had done was the logical consequence of his philosophy, based on the theories of *Darwin*, Buckner and Herbert Spencer.

It is to be regretted that Dr. Burdon-Sanderson should have given his sanction to visionary speculations about life. The president of the British Association holds a responsible position, and should have paused before advocating materialistic hypotheses, which are of no value to science, but which are calculated to shake the faith of numbers of those who heard or who have read his address.

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Physiological Psychology.

 HIS pseudo-science, which was ushered in with such loud triumphant acclamations, and was supposed by its enthusiastic followers to have solved the mystery of the human mind; this *ignis fatuus*, which, if true, would destroy the independence of the human mind and the freedom of the will—is at length proved to be nothing more than a wild and visionary speculation.

This unphilosophical, extravagant and inconceivable notion, that matter can think, has been so loudly and widely propagated by many medical men and physiologists, both in this country and abroad, that it is desirable that a doctrine so fallacious and so fraught with danger to the best interests of society, should be fairly and carefully scrutinized. It is not by mere assertion that such a theory can be established, and if it can be shown that the arguments on which it is based are shallow and visionary, great blame rests with

those who promulgate views which are subversive of all morality and religion.

Physiological ~~Physiology~~^{Psych}—in other words, Materialistic Physiology—is the most subtle and dangerous form of scientific Atheism, because the knowledge required to confute it is confined to a limited number of enquirers.

Its doctrines are pervading all classes of society, and are most conspicuous among the younger members of the medical profession; which must be expected, when many teachers holding high rank in our medical schools have unhesitatingly done their utmost to imbue the minds of the rising generation of students with the notion that all our time-honoured creeds are the assumptions of credulity and folly. The students are taught to look upon them with contempt, and to substitute speculative opinions, which cannot be of the slightest practical value, but must inevitably, sooner or later, make shipwreck of the highest hopes and noblest aspirations of our nature.

I stated in an address I delivered before the members of the Victoria Institute, sixteen years ago, on Materialistic Physiology, that the terms Mental Physiology and Physiological Psychology were illogical. It is, in fact, a jumbling together of mental faculties and

cerebral functions. The chief dogma of the new school is that mind and all its faculties—perception, memory, will, reason and imagination, as well as all the moral emotions—are the result of bodily functions, as if they were merely secretions like those of the liver or kidneys. They have various unintelligible modes of describing the phenomena of the mind. Its operations are spoken of by some as the product of the caudate cells of the brain; by others as a disturbance of the equilibrium of nervous power; as expressions of material changes in the brain; as cerebral vibration; as emanations from the brain, &c.* It seems strange that any one can believe, or expect others to believe, that assertions like these, unverified by careful scientific induction, can be substituted for what is commonly understood by the term *mind*. Mind is a *fact*; its existence is proved by our own consciousness; and its operations are indelibly inscribed in the literature and art of ages. It would be as absurd to doubt it as to doubt the existence of a God, although we cannot

* The English language itself is getting corrupted by the new scientific nomenclature that has been adopted in the vain endeavour to make their theories intelligible. They will soon have to publish a glossary of the terms which are fast accumulating. For instance, they call poetic emotion—the thrill of a ganglion; thought—cerebration; life—molecular force; creation—evolution, &c., &c. The common practice of using the terms brain and mind synonymously has led to great confusion of ideas.

explain the nature of either. They are *true*, although *inexplicable mysteries*.* That mind is connected in a mysterious manner with our organization no one can disbelieve, but we defy the modern physiologists to explain the connection.

They speak as confidently of these speculative opinions as if they were acknowledged facts and recognized truths, and as if recent researches had thrown a flood of light on the functions of the brain and spinal cord. I again challenge them, as I have done before, to show that any one really great fact as regards the nervous system has been elicited since *the discoveries of Sir Charles Bell and Dr. Marshall Hall*. The nerve fibres of sensation and motion have been traced a little further towards the centre of the brain, but we are as ignorant as ever of the properties of the caudate cells of the cerebral convolutions; we can only surmise that it is through them that the mind perceives sensations and that the will is exercised.

The human mind is an *entity*, not a *non-entity* as the materialists endeavour to make us believe. It is a

* Mr. J. A. Froude made some pertinent remarks on the mystery of life in a letter which he wrote to me in 1879. He said—"Life, whether physical or moral, is much beyond the reach of scientific investigation. I hope a time is not distant when ^{it}~~they~~ will be frankly acknowledged and the mystery of both will again impress us as it used to do."

spiritual essence, and cannot be divided, and as to consciousness, not even the most daring and presumptuous of materialists has been able to give the faintest shadow of a physical explanation of its nature. A writer, James Ansly Hingestⁿ, F.R.^C.S., in the Journal of Psychological Medicine for 1848, eloquently describes what is the true notion of mind:—"Far more transcendent than all these glories [of the universe] is the mind of man—encased within its bony tabernacle for a brief and hurried season—confined to the small spot of the earth, and from beneath the pent-house of its eyelid peering forth on the broad daylight of this fair world, and glancing, with almost angel's ken, from earth to heaven. Mind is indeed an enigma, the solution of which is beyond the reach of this very mind, itself the problem, the demonstrator, the demonstration, and the demonstrand. The mental operation is introverted: the eye must view itself—the thought must think on thought—and the mind must understand and explain the mind. O wondrous work! Who shall penetrate its inmost recesses and visit the varied chambers of its imagery? What tongue shall tell the endless legends of its lore? or what pen describe the mazes of its endless labyrinth of ideas? Pass on thou slow-footed herald, Time! and guide us to that golden

mansion (*domus aurea*) where the hidden things of earth shall be refulgent with truth, and the failing things of age glow with the splendours of an everlasting knowledge." We will now proceed to expose the fallacies of this modern phase of materialistic phrenology.

The chief arguments which have been brought forward in favour of Physiological Psychology may be summed up as follows:—

First—That the theory of a correlation of force proves that vital, and even mental, energy, are interchangeable with physical force.

Secondly—That the phenomena of insanity gives weight to the doctrine of Physiological Psychology.

Thirdly—That memory is merely a register of impressions on the brain cells.

Fourthly—That there is a function of the brain, termed unconscious cerebration, by which it is understood that the brain can think without individual consciousness.

Fifthly—That the experiments of Fritsch, Hitzig, Ferrier, &c., have gone far to prove that mental faculties can be localized in the brain.

I shall commence, for consideration, with the last of the points enumerated, as they have lately occupied so much attention both abroad and at home.

With an inconceivable alacrity, the medical journals in England, with scarcely an exception, have vied with each other in extolling Dr. Ferrier to the skies; they seemed to think that he had discovered a royal road to a thorough knowledge of the nature of the human mind—it was, after all, nothing more than a mass of cerebral functions. They did not stop to consider what the inevitable consequence of that belief must be—that mind and brain must perish together—a pleasant prospect, if true! Physiological Psychology is merely a revival of the exploded system of Phrenology, the object of which is to materialize mind, by giving a local habitation to each of the moral and intellectual faculties in different parts of the brain. The scheme is an old one,* and has been defeated over and over again; nevertheless, as time goes on, it is revived in some fresh shape, by the adaptation of a new phraseology to old ideas, by men who, however distinguished in some special department of physical science, are evidently incapacitated by their ignorance of mental philosophy, from clearly comprehending the fundamental truths of psychology.

It is the confident boast of the psycho-physiological

* In the number of *The Mirror* for September, 1826, it is stated that the system of Craniology, a form of Phrenology, is 300 years old.

school, that one of the means of arriving at a right interpretation of the *human* mind is by experiments on the brains of *animals*.

Dr. Ferrier published two works, in which he gave an account of his observations and experiments. I reviewed them both, one in the *Journal of Psychological Medicine*, for October, 1877, and the other for that of April, 1879. I combatted the deductions he drew from his experiments, especially with reference to the localization of mental faculties in the brain.

As the experiments which Dr. Ferrier, Fritsch, Hitzig and others conducted, were performed on the brains of monkeys, cats, dogs, rabbits, pigeons, frogs and fish, I would remark, in the first place, that even if they had been less conflicting as regards the centres of motion and sensation, they could not throw any light on the moral or intellectual faculties of man.

It happens awkwardly for the above authorities, that Brown Seguard, of Paris, and Eugene Dupuy, of New York, holding the highest rank as cerebral physiologists, have, after careful experiments, come to diametrically opposite conclusions. Many years since I remarked, in the *Journal of Psychological Medicine*, that even the so-called discoveries of the best physiologists were at variance with each other. It had been long believed

that a portion of the brain (the optic thalami) was closely connected with the upper extremities, as motor centres, but experiments by Northangel had completely upset Dr. Ferrier's opinion as to the localization of the centres of sensation and motion. These facts shew that physiologists should pause before asserting that the highest mental manifestations are only emanations from brain-matter, when they are unable even to determine the centres of motion and sensation.

Dr. Ferrier's experiments consisted, first, in *ploughing up* (as he expresses it) parts of the brain by a wire cautery; secondly, in wholesale slicing away large portions of the cerebral substance; and thirdly, in electrifying particular spots of the brain. It is more than probable that the first of these two experiments must have caused so severe a shock to the nervous system, as to interfere materially with the results. In one experiment, he concluded that as the monkey lost its appetite, after electrifying a particular part of the brain, that he had discovered the seat of hunger! It is not to be wondered at, that the monkey's appetite should be impaired after the whole of the occipital lobes of the brain had been removed. It is more reasonable to believe that it was the shock of the operation that caused a diminution of appetite, rather

than injury to an imaginary seat of hunger, as Dr. Ferrier suggested. There is another reason for placing no reliance on the electrical experiments. Granting that the electrical current had been directed with extreme precision to the required spot, what was there to prevent it being diffused over other parts of the brain, for water, a good conductor of electricity, enters largely into the composition of the blood contained in the minute blood vessels of the brain. There is also another opposing influence which must be taken into consideration—reflex action—which would be likely to interfere with the accuracy of the experiments.

The fact also must not be lost sight of, that the cortex of the brain, in which the materialistic physiologists suppose the faculties of the mind to be located in a homogeneous kind of structure, and that one convolution exactly resembles another as to their microscopical appearances and chemical elements; the same as one portion of the liver resembles another; and it would be as unreasonable to map out the substance of the latter into separate divisions as the former, for there are no visible lines of demarcation.

As Dr. Ferrier is evidently unable to determine precisely the centres of the functions of sensation and motion, all that he said *on the hemispheres* (of the brain)

considered psychologically, is so much waste paper.

With the unphilosophic haste, so conspicuous in the materialistic school, it was most confidently asserted that the faculty of speech was located in the third frontal convolution of the left hemisphere of the brain, but this opinion has been proved to be incorrect by pathological facts. The location of the faculty of speech (Broca's theory) was the chief ground which appeared to give any support to the materialists in their untiring efforts to destroy the independence of the human mind. Although this ground has been swept away, as we shall presently show, they still cling with desperate energy to their forlorn hope.

Many cases are on record in which Broca's convolution, and the island of Reil, has been diseased or injured without loss of speech.

One of the most striking instances, in the celebrated American crow-bar case, in which a tamping iron, an inch and a quarter in diameter, was driven completely through the head of a workman by a sudden explosion of gunpowder. It was proved by careful measurement that it must have destroyed the Sylvian artery, which supplies Broca's convolution, but the whole of the island of Reil, a part of the brain intimately connected with Broca's supposed seat of speech. This

extensive injury was not followed by loss of speech.

A somewhat analogous case occurred in the practice of the late Mr. Lanyon, of Camborne, many years since. I had the particulars from himself, and he was a man of remarkable intelligence and undoubted veracity. A miner, whilst engaged in blasting a rock, was by a sudden explosion struck by a tamping iron, which entered at his forehead and came out at the back of his head, completely transfixing the brain. Incredible as it may appear, the man immediately after the accident walked to Mr. Lanyon's house, and in his presence tried to pull out the iron himself. This case was mentioned to me long before the subject of Broca's theory was broached, or I should have made particular enquiries as to the man's mental state, and the precise seat of the lesion, at the time. It was probable that the man was able to give an account of the accident, and consequently had not lost the power of speech.

Another case is reported by M. Peter, of a man who, after rallying from the first effects of a fracture of the skull, became exceedingly talkative. After death, it was discovered that both anterior lobes of the brain were reduced to a pulp.

In 1877, I published a case which occurred at St. Mary's Hospital, in which speech and memory re-

mained after extensive softening of both anterior lobes of the brain.

M. Bouilland offered a prize of five hundred francs for any well-authenticated case in which the two anterior lobes of the brain were destroyed without speech being affected. This was claimed by M. Velpear,* who had a patient under his care in whom a prominent symptom was *intolerable loquacity*. After death, it was found that a cancerous tumour had taken the place of the *two* anterior lobes, in one which was supposed to be the seat of language.

Notwithstanding all the irrepressible facts we have mentioned, Dr. Ferrier subsequently published an article in the *Princeton Gazette* for July, 1879, in which he again makes the assertion that "Mental Phenomena are the subjective aspect of the functions of sensory and motor substrata, and that, on the last analysis, mental phenomena, however complex, should be reducible to correlation with the activity of certain simple motor and sensory elements!" This is a glaring instance of the *petitio principii* fallacy, so conspicuous in the reasoning of the materialistic physiologists.

* Vide *Gazette des Hôpitaux*, for April 6th to June 8th, for the discussion on this case. It is noteworthy that Dr. Ferrier never referred to this case, in his work of the functions of the brain.

Unfortunately, the propagandism of Physiological Psychology* does not end with Dr. Ferrier. In the *Nineteenth Century Review* for December, 1879, Dr. Althaus, in advocating the localization of the intellectual faculty of intelligent language, in the third left frontal convolution of the brain, and its immediate

* Materialistic Psychology is not only attended with mischief morally, but also pathologically. A case was reported in the *Lancet*, some years since, of a patient who had his skull trephined, under the supposition, I presume, that Dr. Ferrier had discovered the precise situation of the nervous centres. The patient's skull was perforated, and he died from the shock of the operation. On a post-mortem examination, the disease was found to be at the base of the brain, beyond the reach of surgical skill. Since writing this note I found the following opinion of Experimental Physiology, which confirms my views :—

“We regret to record the death of Mr. John Pettie, R.A. After suffering for some time from an affection of the ear, Dr. Ferrier was taken into consultation, and on Monday, February 20th, Mr. Victor Horsley performed an operation for the removal of an abscess on the brain, but this seems to have been fruitless, the talented artist expiring almost immediately. The value of these operations appears as questionable now as in 1884, when ‘F.R.S.’ claimed that the person operated on ‘had faith in his doctor, and no fine-spun scruples about availing himself of the results of vivisectional discoveries,’ ‘was snatched from the grave,’ ‘convalescent and full of gratitude,’ ‘with good prospect of restoration to a life of comfort and usefulness.’ ‘In that case,’ wrote F.R.S. to the *Times*, ‘he will be a living monument of the value of vivisection.’ It is well-known this ‘living monument’ died eight days after this letter of ‘F.R.S.’ was published, and now, once again, in 1893, Experimental Physiology has brought about its own condemnation.

—THE ANIMALS’ GUARDIAN.”

We wish it to be understood that, whilst condemning useless experiments on animals, like those of Dr. Ferrier, we think there are occasions when they are justifiable.

neighbourhood, says :—“ This *discovery* was foreshadowed by Gall, but *actually* made by Broca ! ” One of the proofs of this discovery, he adds, is that when “ electricity is applied to the brain of the *living* monkey or rabbit, the animal opens its mouth, and alternately obtrudes and retracts its tongue,” in its efforts, we suppose, to say—Don’t !! granting, of course, that the monkey and rabbit were endowed with the faculty of speech !

Dr. Andrew Wilson, in an article on “ The Old Phrenology and the New,” in the *Gentleman’s Magazine* for January, 1879, says :—“ Our new phrenology—for the word is perfectly explicit, as denoting a science of *mind or brain*—is gradually being built up from sure data and accurate *experimentation* ! ” *

Another publication, *Mind*, established in 1877, has done its utmost to establish the pernicious doctrines of Physiological Psychology and Positivism. Never was there a greater misnomer than the title—*Mind*. It

* It is greatly to be regretted that the Editors of some of the monthly journals afford such facility for scientific atheists to air their dangerous theories in popular publications. Their unscientific and unthinking readers are unable to detect the fallacy and sophistry of the writer’s arguments, and their mischievous teaching becomes widely spread. The subtle sophistries of the materialistic school have done infinitely more harm than all the outspoken blasphemy of Hyde Park stump orators.

should have been termed—*Matter*. Well might the editor of *World* say, in a short notice of *Mind*—*Caveat Emptor*. Never did there appear a greater amount of learned dulness and foggy philosophy.

The Edinburgh Review, for January, 1879, endorsed some of the boldest and most extravagant materialistic hypotheses. The writer of an article in it, says the *brain substance* itself accomplishes the task of transmuting the impression of sense *into ideas*! Further, he drew the following conclusion, from what he considers the recent progress in scientific discovery:—“With every expression of a *mental state*, and with *every* action of the *mind*, some structural change occurs in the substance of the brain.” We must protest against the acceptance of this notion as an absolute truth. No one has proved it. During our waking moments it is inconceivable that a subtle spiritual thought cannot take place apart from matter; much less likely is it that the fancies which flit across the mind in a dream should produce the slightest molecular change in the brain, unless accompanied with strong moral emotion, which, sleeping or waking, no doubt disturbs the centres of the nervous system. Dr. Alman, in his address at the British Association, and two leading divines also, some years since, unfortunately adopted

this assumption of the physiological psychologists as a probable fact.*

We will now enumerate the chief facts, which strike at the very root of materialistic physiology.

1. It must be admitted that no great facts, calculated to throw light on the functions of the nervous system, have been made since the brilliant discoveries of Sir Charles Bell and Dr. Marshall Hall.

2. In no instance has it been proved that mental and physical forces are mutually convertible. The doctrine of a correlation of force therefore, can give no support to the theory of physiological psychology. In the present day it is too much the practice for scientific writers to use the term correlation, in a vague way, to account for phenomena they do not understand. They use it in a *hœcûs pœcûs* sort of way. For instance—What is mind? They answer—A correlation of psychic and magnetic forces.

3. The experiments of Dr. Ferrier have completely failed to localize the mental faculties in the brain.

* It is a matter of regret that some of the clergy, who are not accustomed to scientific investigation, are too apt to give credence to the theories of men who stand high in the scientific world. They should not be in such haste to adopt scientific hypotheses, either for or against religion. Many attempted to adapt the infidel doctrine of Darwinism to Christianity. Others, again, have eagerly adopted some new scientific theory which appeared to favour Christianity, and their discomfiture has been great, when it is afterwards proved to be a fallacy.

4. The phenomena of insanity give no support to materialistic physiology. The supporters of this doctrine refer solely to particular cases, in which marked signs of lesions of the brain have been discovered after death. That bodily disorders will affect the mind is unquestioned, and it is equally true that mental causes will produce insanity. In many cases of acute mania, ending rapidly in death, a *post-mortem* examination is unable to trace any disease in the structure of the brain. The decided influence of the mind is a fact recognizable by the most superficial observer. Is there any cordial like hope to revive a patient exhausted by protracted bodily disease ; and will not a moral shock, shattering all hope of worldly happiness, convert a healthy man into a raving lunatic ?

5. Dreaming, in which the incoherence and hallucinations so closely resemble insanity, is adduced as an argument in favour of materialism. In sleep the mind is left to wander, fancy-free, among the images and memories of the past, but consciousness is never lost in deep sleep or concussion of the brain as materialists confidently assert. If this were the case, the mind would become, for the time, a complete blank. I would suggest that in the profound coma of concussion, the mind is in a similar state to that which

occurs in what is called dreamless sleep, when we do dream nevertheless, although we have forgotten the subject of it when we awake. How frequently after profound sleep does it happen that we have a vague impression that we have dreamed but cannot recollect the faintest particulars of the subjects of the dream. Then why should not the same condition occur in profound coma from concussion of the brain, or any other form of cerebral disorder which produces a paralysis of the centres of sensation and motion? These bodily functions are in abeyance, but not the immaterial faculty of consciousness.

Unconscious cerebration, first announced by Dr. Carpenter, was a most incredible hypothesis, but which was eagerly seized upon by the physiological psychologists as giving support to their doctrine. It assumed that the mind could act without consciousness—a most illogical and incredible idea. If this were true, it would reduce human beings to mere automata; a very comfortable notion for those who are averse to mental labour, as it must be presumed that the brain is capable of doing our thinking, without any trouble to ourselves, like the working of a steam engine.

Another incomprehensible notion is what is termed *ideo-motor*, actions *involuntarily* performed under the

direction of ideas. The chief facts which gave rise to this theory, are connected with walking and with the rapid movement of an accomplished musician's fingers. The probable explanation of the fact appears to us to be, that when a command over any particular set of muscles has been acquired, the amount of attention required is so infinitesimal, and the recognition of it is so faint, that it escapes the memory.

A consideration of the leading points in the arguments adduced will, it is to be hoped, tend to calm the fears of those whose faith may have been shaken by the dogmatic teaching of the physiological psychologists, and help to assure them that the time has not yet arrived when the broad distinctions between mind and matter are to be obliterated. Materialism cannot lead to the amelioration of mankind. The ideas of a ruling Providence and a future state being abandoned, brute strength, lying, cunning and selfishness would be in the ascendent, patriotism would be a thing of the past, and all the horrors of communism would follow. Fortunately, from the constitution of human nature, it is not from the ranks of the materialists that we derive a Philip Sidney, a Chevalier Bayard, and a Havelock.

Some materialists do not absolutely deny the existence of a Deity, but the only conception they have of a

Creator is that of a Power, whose work was completed æons ago, and has long since ceased to preside over His handiwork. And this removes the Creator so far from us, that He becomes a mere vanishing point in the dim vista of infinity.

The modern cerebral physiologists have been guilty of a serious error, in their attempting to explain mental phenomena by hasty generalizations from the few facts that are known respecting the nature and properties of the grey substance of the brain. The mind is an independent essence, and it is inconceivable that matter can think.

Their hasty and illogical conclusions would have mattered but little if the question at issue had reference only to physical science; but when their haphazard speculations tend to shake a belief in the independence of the human mind—a belief that has been upheld by the greater philosophers of ancient and modern times—they might surely have hesitated before announcing doctrines which, if true, would sap the foundations of morality and religion.

But it is not by glib phrases, sophistical arguments, or *ad captandum* rhetoric, that the new system can be established, and it is to be hoped that ere long Physiological Psychology will be consigned to that limbo which has engulfed so many systems of false philosophy.

